

process as at Montaguon, will sell for 47. per ton, and deducting 17. per ton for its manufacture, the result will be three times 200,000, or 600,000. per year. Liebig estimates it at 700,000; and Dr. Graham at 220,000 tons, which, if treated according to Mr. Bardwell's plan, would produce upwards of two millions sterling per annum, by which plan, eventually, cesspools might be altogether abolished.

Mr. E. Chadwick thought it better that these matters should be, in the first instance, referred to the General Sanitation Committee, as, by being thus brought forward, the time of the court would be saved, and when brought from the committee, the whole matter would require consideration.

The subject was referred accordingly.

Mr. Chadwick laid before the court a very voluminous report, drawn up by Mr. Lovick, the surveyor to the Paving Board of the united parishes of St. Andrew, Holborn, and St. George the Martyr, which pointed out the great defects of drainage in that locality, and said the information contained therein had been obtained from the inhabitants themselves, who had been visited, house by house, and in every case the inhabitants testified the liveliest interest in the proceedings adopted for their comfort and cleanliness. The report particularly alluded to the state of Baldwin's gardens, where the most noxious exhalations were emitted from cesspools, only four feet from the basement. Mr. Chadwick said he thought this was a fair specimen of the evils they had to deal with and to remedy. To show that persons were alive to habits of cleanliness, he found that in many cases the practice of sweeping and sending the doorways had re-appeared in districts where it had rarely been in before. He moved that the thanks of the court be given to the Paving Board of St. Andrew's, Holborn, and St. George the Martyr, and to Mr. Lovick, the surveyor, for the zeal and ability displayed in conducting the inquiry, and for the able report presented to them.

The Hon. F. Byng hoped they should not alone have to tender their thanks to the parish of St. Andrew, Holborn, for instances of want of sewerage were not wanting in many other districts. St. James's parish, Westminster, alone, contained 168 streets and alleys, and out of this number 88 were totally without sewers, and the greater part of those where sewers did exist were very old; and as far as he knew of the locality, not 1 in 7 of the houses communicated with any sewer. The resolution was then put and agreed to.

Mr. Broderip hoped that other boards would act in the same spirit, for he knew that so far from the poor objecting, they were eager to receive the benefits of cleanliness. He thought, in every case, there should be an abundant supply of water, for he knew that in the hot months frequent private quarrels arose from the scarcity of water.

Lord Ebrington said he received a communication lately from Dr. Farre, that many of the inmates of workhouses were suffering from the want of proper drainage. Referred to the surveyor.

The Dean of Westminster mentioned to the court that within the last few days four men had been employed in cleansing cesspools within the precincts belonging to the Dean and Chapter of Westminster, and during that time the progress of the work had been watched by Mr. Glass, chemist, and the clerk of the works, and their reports, for which they were responsible, were highly satisfactory. Sir W. Burnett's fluid, consisting of the chloride of zinc, had been used for the purpose of deodorisation,—four cube yards of soil having been completely deodorized by ten quarts of fluid, and removed in two hours by four men. The men coming new to the work, it was believed that when they were organised, they would do twice as much work in the same time. He certainly felt surprised when a man stood over a cesspool, and the more the deposit was disturbed the less odour arose. He did not quite agree with those who considered cesspools tainted adjoining wells. He knew several cesspools near to wells, wherein not the slightest impregnation by percolation had occurred to the water, which he attributed to the filtration through a fine substratum of gravel in that neighbourhood.

Mr. Chadwick could not allow this statement to go forth unqualified, for he knew in many instances wells had been abandoned, the cause being traced to offensive cesspools.

Mr. Leslie said he had himself a good well situated some distance from the cesspool, but still he found the water tainted, but could not ascertain the cause until he had the cesspool taken up and removed, when the water became again pure. The deodorizing fluid might successfully neutralise the smell, but still he hoped that as cesspools were cleaned, they would be filled in, for he looked upon them as the pestilences of the land.

Professor Owen said the filtering alluded to by Dr. Buckland could only apply to clean gravel.

Mr. Chadwick said a list of regulations had been drawn up for voluntary associations, having for their object the cleansing of courts and alleys. In addition to Sir W. Burnett's fluid, others were in

course of trial, and amongst them the chloride of manganese, and with every prospect of success; but before they could supersede cesspools, they must have not only an abundant but a continual supply of water, and then they might hope to annihilate the evil.

The surveyors then presented the following report on the flushing and cleansing of courts and alleys:—

"Since the last official deposit has been flushed away from sewers hereunder named:—

	Length in feet.	Double in days.
To the Westminster division.....	16,500	3,625
" Surrey and Kent.....	18,800	1,513
" Tower Hamlets.....	8,740	1,099
Open sewers in Surrey and Kent.....	14,915	1,793
Amounts reported at the last court.....	22,100	3,396

Making a total of..... 70,855 10,665

In cleansing cesspools, courts, and alleys, Sir William Burnett's deodorizing fluid has been used a sufficient length of time to ascertain the quantity needful for cesspools of large size. The surveyors are now about using Mr. Lefroy's fluid, and propose afterwards to use Mr. Alderman's in a similar manner, as also a fluid sent by Mr. Herpath, of Bristol, to arrive at a result that will enable us to say which fluid will be the cheapest."

The report was received and adopted.

Upon the recommendation of the committee for a rate of 8d. in the pound on the Kent and Surrey division being read, Mr. Hutton said he wished to offer a few words in explanation of this subject. This rate had been agreed to by the late commissioners, and in now ordering it to be collected, it was to enable the present commission to liquidate the outstanding debts of that body. His object in thus mentioning it was, that it might not go forth that the commencement of the operations of the new commission was to be accompanied with the imposition of a large rate. The rate was then agreed to.

A letter was read from Mr. Gwit, one of the late surveyors of the Kent and Surrey Commission, in answer to the subject discussed at the last court as to his continuance in the office of surveyor. He stated that he considered any formal resignation of office was unnecessary, as he, in common with others, had been superseded on the issue of the present commission; but having held the office for nearly forty-six years, he thought he was entitled to some compensation for its abolition.

This letter was referred to the Committee, and after some routine business had been transacted the court adjourned.

Correspondence.

CAEN STONE.

SIR,—A few inquiries appear to suggest themselves in reference to the discussion on building stones, at the Institute of British Architects, as reported in your valuable paper of the 29th inst.

In what respect is it "difficult now to get stones from the beds, from which the early buildings in Caen were erected?"

How to distinguish between what is stated to be "very durable, and some that is by no means so." Is it not desirable that well-seasoned blocks should be available in the London market, for any work on the point of commencing, so that the quality and date of importation might be properly attended?

Is there not some risk of change in the transit, if stones are selected at the quarry?

I am surprised that a statement should go forth, that "blocks of Caen stone may be placed in construction in any direction, except when the white veins are perceptible," an opinion from which you most properly dissent, but it is a question which should at once be set at rest. If "the most experienced eye can hardly detect the different qualities of the stone in the block, when once they have been removed from the quarry," what test should they be submitted to before being used in a building?—I am, Sir, &c.,

Pimlico, February 1, 1848.

Miscellaneous.

UNION OF CAST-IRON WITH COPPER, WROUGHT-IRON, STEEL, &c.—The process patented by Mr. Ferriach consists of the preparation of the copper by filing, or the wrought-iron by acids and alkalis, to clear the surface of oxide, after which it is plunged into a bath of tin 95, copper 5 (or more copper and less tin for large surfaces), and then laid in the cast-iron mould so as to allow the cast metal to be poured upon it to the requisite form. When united with copper, the metal must be poured in at as low a temperature as possible.

INSTITUTE OF MECHANICAL ENGINEERS.

—The first annual meeting was held at the theatre of the Philosophical Institution, Cannon-street, Birmingham, on Wednesday week. In the absence of the president, Mr. J. E. McConnell took the chair. Mr. Fothergill read the report prepared by the council, congratulating the members on the successful progress and prosperous condition of the institution, which now numbered 123 members, and four honorary members; and calling upon the members and friends of the institution to renew their efforts to promote its further rise and success. Mr. Alderman Thornton gave the following account of his new hydraulic jack:—"The principle of this jack is the same as that of the hydraulic press. Its advantages are the ease and steadiness with which a great weight can be raised by one person; the facility with which the lowering of the weight can be regulated without labour; and from there being no circular motion of the handle, there can be no tendency in the jack to twist from the position in which it is placed; also, by the use of strong wrought-iron tubes for the cylinder and ram, the weight of the jack is less than those now known. This jack can be used in cases where others are available, and in some where others are not so; for the motion of the lever being vertical instead of lateral, it can be used wherever there is a sufficient width to place it. With a jack of the size shown, one man can lift from 15 to 20 tons weight." Considerable discussion ensued upon the merits of the invention, in which the Chairman expressed his opinion favourably of it, as did also several other members.

ROMAN LONDON.—Last week, in excavating for the foundation of the new Coal Exchange, in Thames-street, a red tessellated pavement, and the remains of a hypocaust were discovered. According to our informant, the warm air chamber is 20 inches high, and consists of a series of pillars, composed of 14 tiles, 8½ inches square, 1½ inch thick, and 1 foot 5 inches apart, paved and covered with large tiles 1 foot 11 by 12 inches, and two inches thick. At a meeting of the British Archaeological Association on Friday evening, in last week, drawings of the remains were exhibited and a description given. The apartment containing the arrangement for warming is semi-circular on one side, which projects beyond the outer wall of the other room, and has a recess in the wall, or seat for two persons. The outer-wall of the semi-circular apartment has been entirely removed at some remote period, but that of the other room is in part standing to the height of several feet, and is entirely composed of long flat red tiles, with an occasional course of pale yellow ones. The remains are about 13 feet below the pavement of Thames-street, shewing how much the level has been raised since the time of the Romans.

THE CAB-STAND NUISANCE.—A *quoniam* "Cabman" has addressed a letter to us in reply to Mr. Waller's statements, commencing:—"Whilst in the coffee-house many of my fellow-cabmen sleep, others smoke and discuss the Parliamentary debates of the week, I, with the feelings of an emigrant reading of his fatherland, examine in THE BUILDER (they take it in here) the transactions in those fields of science where I rambled a boy, and which I cultivated in my youth. It were right to say that I was brought up an operative. What thorny paths I trod, accompanied by pale sickness and flesh-fed want, until I came to this stand, it is needless to say. I fell, as many a better man has done, and I am now (I should have been ashamed at one time to write it) a common, though not despairing, cabman." He jokes on the attempt to get rid of what he does not think a very great nuisance, asks who is to pay for the proposed covered places, and thinks inconvenience would result from putting the cabs out of sight. In truth, however, the cab-stands are a great nuisance, and though, as he says, there exist worse, and "he would have the giants lamed and leave the pigmy for a time," it is desirable we should see all our foes before us, so that we may knock them off one at a time, as opportunity occurs. "Cabman" wisely asks for more water. We would have all London shouting for the same thing as if every house were on fire, and will gladly aid to raise the cry.